

AMENDMENTS TO THE CLAIMS:

This listing of claims will replace all prior versions and listings of claims in the application:

1. - 24. (Canceled)

25. (Previously Presented) A method of controlling an engine, comprising:

providing an engine having an engine cylinder, an engine piston reciprocatingly disposed in the engine cylinder, a valve port in fluid communication with the engine cylinder, a valve reciprocatingly disposed in the valve port, a fluidically driven valve actuator operatively associated with the valve, a mechanically driven valve actuator operatively associated with the valve, a source of low pressure fluid, and a source of high pressure fluid, the engine piston having intake, compression, power and exhaust strokes;

supplying one of the low and high pressure fluid sources to the fluidically driven actuator;

causing the valve to be open during one of the intake and exhaust strokes using the mechanically driven actuator; and

causing the valve to be open during the compression stroke using the fluidically driven actuator.

26. (Previously Presented) The method of claim 25, wherein the valve is an intake valve.

27. (Previously Presented) The method of claim 25, wherein the valve is an exhaust valve.

28. (Previously Presented) The method of claim 25, wherein causing the valve to be open by using the fluidically driven actuator is performed by connecting the source of high pressure fluid to the fluidically driven actuator.

29. (Previously Presented) The method of claim 25, wherein the source of low pressure fluid is a lubrication oil system of the engine.

30. (Original) The method of claim 25, wherein the source of high pressure fluid is a high pressure rail of the engine.

31. (Original) The method of claim 25, wherein the source of low pressure fluid is used to take up any lash in the system.

32. (Original) The method of claim 25, wherein the engine further includes a control valve adapted to connect one of the low pressure source and high pressure source to the fluidically driven actuator.

33. (Original) The method of claim 32, wherein the engine further includes a processor and a sensor, the sensor being adapted to transmit a signal

representative of engine operation to the processor, the processor adapted to transmit a signal to the control valve based on the signal from the sensor.

34. (Original) The method of claim 33, wherein the sensor is adapted to monitor one of the group of parameters consisting of engine speed, engine crank angle, temperature, engine load, and fuel delivery.

35. (Previously Presented) The method of claim 25, further including opening the valve using the mechanically driven actuator.

36. (Previously Presented) The method of claim 35, wherein the causing the valve to be open using the fluidically driven actuator includes holding the valve open during the compression stroke after the valve is opened using the mechanically driven actuator.

37. (Previously Presented) The method of claim 25, wherein the causing the valve to be open using the fluidically driven actuator includes opening the valve using the fluidically driven actuator.

38. (Currently Amended) ~~The~~ An engine valve actuator of claim-13, further including: comprising:

an actuator cylinder having a fluid passage;

an actuator piston reciprocatingly disposed in the actuator cylinder;

a control valve operatively associated with the actuator cylinder, said control valve having a housing, said housing receiving low pressure fluid from a low pressure fluid inlet and receiving high pressure fluid from a high pressure fluid inlet, said housing having a fluid outlet, a plunger having first and second ends reciprocatingly disposed in the housing, the plunger being movable between a first position at which the low pressure fluid inlet is in communication with the fluid outlet, and a second position at which the high pressure fluid inlet is in communication with the fluid outlet, the fluid outlet being in fluid communication with the actuator cylinder fluid passage; and

a controller adapted to transmit a control signal to the control valve,

wherein the controller is adapted to cause the plunger to be in the second position during a compression stroke of an engine piston.